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Normal Primary Vaccination Reactions

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A normal primary vaccination appears as a papule in 3-4 days, and rapidly progresses to a vesicle with the surrounding erythema by the 5th-6th day. The vesicle center becomes depressed and progresses to a well-formed pustule by the 8th-9th day. By the twelfth day, or soon thereafter, the pustule crusts over forming a brown scab, which progresses from the center of the pustule to the periphery. After 2.5 to 3 weeks, the scab detaches and a well formed scar remains.

Normal Reaction Time

Day	Description
0	Vaccination
3-4	Papule
5-6	Vesicle with surrounding erythema ? vesicle with depressed center
8-9	Well-formed pustule
12+	Pustule crusts over ? scab
17-21	Scab detaches revealing scar

Rarely, in some previously unvaccinated individuals, seemingly appropriate vaccination techniques may result in no reaction. One should assume that the individual is **not** immune and repeat attempts should be made to achieve a primary take. At least three attempts should be made, switching skin sites after a second unsuccessful attempt.

Systemic symptoms: Systemic symptoms are expected and usually occur about a week after vaccination. These include:

- Soreness at the vaccination site
- Intense erythema ringing the vaccination site
- Malaise
- Lymphadenopathy (local)
- Myalgia, headache, chills, nausea, fatigue
- Fever

The occurrence of these normal reactions varies



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considerably from study to study. The following table lists the symptoms covered by the studies and provides an indication of the range:

• Lymphadenopathy	25.0 - 50.0 %
• Myalgia, headache, chills, nausea, fatigue	0.3 - 37.0 %
• Fever > 37.7° C	2.0 - 16.0 %